

### **Abstract**

A seat buckle sensor system is provided that provides an output representative of a lock condition of a seat belt buckle. The system includes a magnet on an end of a seat buckle lock pin and a Hall device. The lock pin, and magnet on the end thereof, move between a locked position and an unlocked position relative to the Hall device. The magnet imparts a first magnetic flux on the Hall device in the locked position causing the Hall device to produce a first output. The magnet imparts a second magnetic flux on the Hall device in the unlocked position causing the Hall device to produce a second output.